

Amendments to Specification

The paragraph beginning on line 13 of Page 1 is amended as follows:

An MR head, ~~as it~~ which can detect magnetic information signals entered from a recording medium, such as a magnetic tape or a magnetic disk, by variations in resistance, requires the supply of a detecting current (sense current). Furthermore, as such variations in resistance have a nonlinear characteristic with respect to the input magnetic field, an MR head also needs a bias current for keeping the operating point in a more linear region. Recently developed MR heads are designed to utilize these currents (hereinafter to be together referred to as bias currents) ~~use in combination~~.

The paragraph beginning on line 10 of Page 4 is amended as follows:

~~Otherwise,~~ Another aspect relates to a regenerative integrated circuit comprising of a current supply circuit and a regenerative amplifier, which is mounted on the rotary drum to switch over among the plurality of MR heads for operation in turn. Usually a regenerative integrated circuit for MR heads is controlled with digital data on three lines including Data, Clock and Chip Select (CS) lines. For this reason, a control signal generator for generating control signals for controlling the regenerative integrated circuit is provided on the stationary drum side, and a decoder circuit for discriminating data of the control signals is provided on the rotary drum side, ~~and the~~ The three-line signals for controlling the regenerative integrated circuit are supplied from the decoder circuit. This structure requires only one control line for transmission from the stationary side to the rotary side, even if the number of MR heads is increased. Moreover, since the transmitted signals are digital signals, highly precise transmission is made possible.

The paragraph in lines 14-16 of Page 7 is amended as follows:

Fig. 8 illustrates rotary transformers embodied in ~~another way~~ an alternative manner in the rotary magnetic head type apparatus shown in Fig. 6.

The paragraph in lines 20-22 of Page 7 is amended as follows:

Fig. 10 illustrates in detail the control timing in ~~another way~~ an alternative manner in the regenerative integrated circuit in the rotary magnetic head type apparatus shown in Fig. 3.

The paragraph beginning on line 3 of Page 12 is amended as follows:

Fig. 2 illustrates bias current supply circuits 401 and 403 shown in Fig. 1. A ~~current~~ Miller current circuit is configured of transistors 13 and 14, resistors 17 and 18, a diode 15 and a resistor 16. It ~~se~~ operates so that currents proportional to currents flowing to a transistor 19 and a resistor 20 flow to the MR heads 201 and 203. The diode 15 is connected for temperature compensation for the transistors 13 and 14. The decoder 6 discriminates information on bias currents for the MR heads 201 and 203 transmitted via the rotary transformer for control signals 9, and transmits the discriminated data to a digital-to-analog (D/A) converter 21. The D/A converter 21 converts the digital data into analog D.C. voltage signals, which are further converted by the transistor 19 and the resistor 20 into D.C. currents. Thus, the bias currents for the MR heads 201 and 203 can be controlled with the D.C. output voltage of the D/A converter 21. Where the number of MR heads used in this embodiment is to be increased, as many circuits each configured of the transistor 13 and the resistor shown in Fig. 2 as the total number of heads are provided. Half as many D/A converters 21 as the total number of heads would suffice where two each out of plural MR heads are arranged opposite to each other at 180°. Where they are not arranged opposite at 180°, as many D/A converters 21 as the total number of heads can be provided.